COLLIDER ACCELERATOR SHUTDOWN SCHEDULE
RESULTS 1900HRS, APRIL 9, 2003

R. Zaharatos – April 8, 2003

SHUTDOWN PERIOD(EIGHT HOURS): WEDNESDAY, APRIL 9, 2003 - 0800 TO 1600HRS

AGS – CONTROLLED ACCESS ENTRIES – 0930-1500HRS

BOOSTER – CONTROLLED ACCESS ENTRIES – 0900-1400HRS

LINAC – CONTROLLED ACCESS – NO ACCESS

RHIC TUNNEL REMOTE CONTROLLED ACCESS PERIOD – 0815HRS – 1400HRS

RHIC RESTRICTED ACCESS AREAS – IR'S: BRAHMS(8hrs),, AND STAR(8HRS). TUNNEL ZONES: Sect. 2, 4, 6, 7z1, 8z2,9z1). Tunnel zones will be swept as soon as work has been completed

NSRL TUNNEL EXPERIMENTER'S SECTION – SWITCH TO RESTRICED ACCESS AT END OF STUDIES

PRIMAY JOBS:

JOBS STATUS CODE: **C** complete **IP** in-process **RS** reschedule **CAN** cancelled ***** additions

AGS TUNNEL

C	1	C15 Polarimeter – replace silicon and preamplifiers(Bm. Comp./Vacu)
C	2	Replace control card for C17 turbo which may shutdown sector.(Vacu)
C	3	Check K3 for a bad cable or ion pump(Vacu)
RS	4	AC Dipole – inspect/check magnet(Bm. Comp.)

AGS EXTERNAL

RS	1	AC Dipole – test horizontal power amplifier(Bm. Comp.)
C	2	Siemens – replace snubber for pedestal #3.
RS	3	Siemens – take measurement of L4 cubicle area with vendor for new switches for transferring between West. and Siemens transformer
C	4	Siemens M/G – brushes inspection and replacement

BOOSTER TUNNEL

C	1	A3 and B3 RF water – remove measure flow and install flow control valve(6hrs)
C	2	BTA QV6 – rebuild measure flow

BOOSTER EXTERNAL

C	1	Replace all fans in Euorcard p.s. interface chassis in BMM(930A, Ctrls.Grp.)
IP/RS	2	BPM's(Bldg. 914) – phase match cables(RF Grp., requires Booster LOTO)
C	3	BMMPS device controller – check fans and replace as needed.
C	4	BMMPS – test advisor and PLC inputs latching, Booster Mags. And Ref. Mag. Interlocks
C	5	P.S. for QV6 – test magnet water interlocks, check brkr. trip ckt..
C	6	Check BMMPS PS ID firing bucket power supplies(intermittent LED pulsing indication)
C	7	Correctors A1 and A3(bldg. 914) – replace local/remote switches.

NSRL

	1	Set-up jobs in experimenter's tunnel section(Phillips)
C	A.	Temporary remote control for 302 SWIC
C	B.	Reset camera controls
C	C.	Install temp. cables for Chipmunk test

ATR LINE

IP/RS	1	Proton Radiography – cabling for experimental set-up
C	2	BLM System – inspect for potential additions(Bm. Comp.)
IP/RS	3	PTR experiment magnets check out(Fes)

LINAC EXTERNAL

RS	1	Change 7835 Cavity in Mod 6
C	2	Replace driver cart in Mods 1 and 9
C	3	Install new 400 watt RF amp in Buncher 1
C	4	Change Linac timing program
C	5	Polarized Source inspection/maint.

RHIC TUNNEL

	1	P.S.'s – repairs(See List – RHIC POWER SUPPLIES)
C/RS	2	Roman Pots in sectors 1 & 2 – calibration(Pearson) and administrative controls testing(Bm.Inst.) – RS admin. Ctrls.
C	3	Lead flow temp. measurements(Cryo/Sadinsky)
C	4	Cryo Controls – repair thermal switch at 4Q6(Gate 4GE2/Kollmar)
C	5	Fire alarm system repairs at 12 o'clk.
C	6	Injection Kicker(sect. 6) – swap out Blue #4(Bm. Comp.)
C	7	Vacuum – replace gauge g7-cc-pi2 in sect. 7
C	8	Vacuum – leak check Bi5(sect. 5)
C	9	Vacuum – measure leak rate at g7
C	10	Install two NMC Detectors and Stations at the Yellow Ring Roman Pots in sect. 1
C	11	Install two NMC Detectors and Stations at the Blue Ring Roman Pots in sect. 3
C	12	Cryo – relocate temperature sensor related to ice ball investigation at cabinet 9Q14(Gates 10GE1 and 9GI1)
C	13	Remove measure flows in X and Y arcs.
C	14	IPM work in sect. 2(Connolly)
RS	15	CAD CES – relocate network switches located in each alcove(Gould) – 16 of 18 completed
C	16	Inspect connections for all BPM's in sect. 2(Sikora)
C	17	PS2 in 1011B – change WFG
C	18	Check G5 turbo – replaced controller

RHIC EXTERNAL

C	1	Complete the installation of the card reader at 4 o'clk(Gate and 1004B)

RHIC POWER SUPPLLIES(Bruno)

Maintenance Performed on 4/9/03

Ice Ball Checks and Repairs

Heater of O-01Q18 was half dead so it was replaced.

Q89 time constants

Zero crossing problem improved. I think we may still want to try and increase BW.

Spin Rotator OFF problems

Alcove 5C-yo5-rot3-1.4-ps was worked on.
Alcove 7A-bo6-rot3-1.4-ps was worked on.
Alcove 7A-yi6-rot3-2.3-ps was worked on.
Alcove 7C-yi7-rot3-2.3-ps was worked on.
Alcove 9A-yo8-rot3-2.3-ps was worked on.
See document saved as RotatorOFFproblem4x10x03.doc for details.
If the problem returns we will have to go back to these alcoves and p.s.'s. We may also require a short 15 minute access before that to connect some node card cables before the next maintenance day in alcoves 5C, 7C and 9A if the problem returns.

Cryo-Corrector Temperature Measurements

Some of these measurements were done.

Corrector P.S. Work

Corrector P.S.	**Problem** **On all of these check AC connections and DC connections at the magnet and power supply.**	**Comments – What was really done- What was found**	***Serial Number***
Yo7-dod3-ps	Replaced Node Card. Problem has not returned.		
Bi5-oct3-ps	Swapped out p.s. It tripped to the OFF state.		

Noise into permit module Test

Wing did some tests to see if noise into permit module would cause it to trip and he found it did not. This was a follow up to problems we had with permit module bringing down link in 10A even though input was good. Wing also checked for othe rloose cables in 10A but did not find any.

Quench Detection Racks

10a-qd2 and 6b-qd2 ADC card jumpers enabling external +/- 15VDC and external fan failure monitoring were found to be incorrectly configured. Their jumpers were properly configured and proper configuration of all ADC jumpers in all dual bucket quench systems have been verified.

IR Power Supplies

1. Possibly remove bo3-tq6 and/r yi10-tq5 because they each tripped on FET faults once and we may want to examine one and see if any FET's are blown. Not Done and we probably won't do because a FET fault does not exist. It could be noise, a loose wire or a bad opto-coupler that caused the problem. Remove from list
2. In 1010A, if there is time we may want to check more tq power supplies for shorted IGBT's by looking at the AC current during a turn ON. Looked at yo9-tq4, 5, 6. yi10-tq4, 5, 6 and bo10-tq4. Only yo9-tq4-ps was shorted. Yo9-tq4 has been swapped out.
3. Possibly swap out firing card of y8-dh0-ps. Not Done
4. Screw in more 3u chassis cards. 1012A done. Half of 1004B done and some of 1002B done. Some done at 6b. Not Done
5. Replace broken fans in b12-q7, b12-dh0, yo4-qd7 and y-qtrim. All had one bad fan in the rear DC compartment. Not Done
6. Put main p.s. filter material in rear doors of tq racks. Not Done
2. Keep an eye on y12-dh0 (OFF problem) and y6-dh0 (large voltage ripple and spike). Nothing to do as of now. Has not returned since March 17th when we replaced backplane. Don't touch. Remove from list
7. Keep an eye on yo4-qf2-ps. It caused a QLI on Sat 3/15/03 at 1:15 and Wed 3/19/03. It looks like the voltage spiked up on 3/15 and the p.s. started to oscillate on 3/19. Has not returned. Don't touch. Remove from list.
8. Swap out fiber optic card for b2-dhx and see if glitches in error go away. We may want to look on the front of the p.s. to make sure this is real first. Not done.
9. Remove resistor packs in yi10-q89-qp and bi9-q89-qp and replace both with new resistor packs. Not done. Definitely do next time.
10. bi8-tq4-ps error seems unusually low, we may want to swap out the current regulator card. Think about.

Tunnel Work

1. Tape down floor fans in the tunnel that cool magnet trees.

QPA Work

1. Start replacing all QPA D connector hardware?? (b2-dh0-qp, yo8-qf8-qp and yo8-qd1-qp done) No Done.

Gamma-T Power Supplies

Go into alcoves and tighten AC connections of Gamma-T's in 3C, 7A, 7C, 9A. Not Done.

Snake and Spin rotator p.s. Work

Label the rest of the circuit breakers.

Quench Detector

Go around and check quench detector fans are working - Dan O-Done

Valve Box Work

1. Need to replace flashers at top of valve boxes for 2b and 6b.
2. Check light control chassis at 10A because no green lights work.
3. Check green light above blue valve box in 1002B.
4. Light control chassis in 1008B needs to be fixed. Opto logic is reversed.

Sector 9 Lead Flow Temp Experiments

George and Cryo.

ATR Power Supplies

1. Run X-ARC90 in voltage mode. Not done.
2. Test SWM p.s. setpoint buffer. Not done.
3. Tom Nehring may swap circuit breakers 42 and 44, probably won't happen anytime soon. Not done.
4. If ground fault comes back on WQ3 p.s. try something else. AFB board was replaced 9:50 Wed 3/5/03. Problem has not returned as of now.
5. XARC90 and YARC90 phase sequence relay jumpered out. Decide what to do for fix. YARC90 phase sequence relay probably still good because LED lights. Not done.

Detailed Breakdown For 4/9/03

Correctors

1. **Brian and Gene** swap out node card in alcove 7C that feeds yo7-dod3-ps
2. **Brian and Gene** Swap out bi5-oct3-ps in alcove 5C because it trips off

Ice Ball Checks

1. **Rich Conte** checking Enter 4GE2 and check 4GI1 to 3GI1-bring repair bag and repair if simple otherwise get help.
2. **Jeff Wilke** checking 7GE1 to 3GI1
3. **Mitch** checking 8GE2 to 3GI1-bring repair bag and repair if simple otherwise get help.
4. Get **Bob Mac** to help with repairs if needed.

Alcove 5C Spin Rotators - Gregg and Rich K

1. Swap out complete 3u chassis and node card cable for yo5-rot3-1.4-ps

Alcove 7A Spin Rotators – Tom, Joe and Fred

1. Swap out complete 3u chassis for bo6-rot3-1.4-ps. (Did node card cable)
2. Swap out 3u chassis backplane of yi6-rot3-2.3-ps (Did node card cable)

Alcove 7C – Gregg and Rich K

1. Swap out 3u chassis backplane of yi7-rot3-2.3-ps and node card cable..

Alcove 9A– One of 2 other groups above or Ice Ball Teams when they are done

1. Swap out 3u chassis backplane of yo8-rot3-2.3-ps and node card cable.

Q89 Zero crossing problem

1. Don and help from Jim checking y6-q89
2. Ramping with new time constants in yi10-q89, bi9-q89 and b12-q89
3. In service buildings